AD-A084 449 EMORY UNIV ATLANTA GA YERKES REGIONAL PRIMATE RESEA--ETC F/G 6/5
THE BEHAVIORAL AND BIOMEDICAL STUDY OF PYGMY CHIMPANZEES,(U)
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# THE BEHAVIORAL AND BIOMEDICAL STUDY OF PYGMY CHIMPANZEES

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Report on Contract N00014-76-C1007

# PYGMY CHIMPANZEES

## REPORT ON LABORATORY INVESTIGATIONS

Studies on blood chemistry and hematology show that the figures for pygmy chimpanzees in nearly every case fall within the normal human range.

When the pygmy chimpanzees first arrived their hemoglobins and hematocrits were low and each successive estimation showed improvement up to the present.

The following parasites were found on arrival:

Strongyloides
Enterobius
Trichomonas
Sucking Lice
Microfilariae
Cestodes
Nematodes

Rectal, throat and stool cultures showed the presence of Herpes and pox viruses. TB tests carried out on arrival and at intervals thereafter remained ambigious and this delayed for months the liberation of the animals from quarantine.

Of the five animals which arrived, two babies, Mukili and Maschini were in a very low state of health and finally refused to eat, forced feeding and finally intravenous feeding were used, but it was impossible to save these two animals.

The other three animals, the mature female, Lokalema, and the two prepubescents, Matata and Bosondjo, have progressively improved in health and at the time of this writing are in good condition.

The weights of the five animals on arrival were:

| | | | |
|---|---|---|---|
| Matata | 9.5 kg. | Mukili | 6.5 kg. |
| Lokalema | 27.7 kg. | Bosondjo | 11.2 kg. |
| | | Maschini | 7.0 kg. |

Studies have also been made on the general and sexual behavior of these animals and a paper concerning these results have been sent to "Science" for publication. A copy of the manuscript is attached.

Some preliminary studies have been started on the level of female sex and gonadotrophins in the blood and a full study of the hormonal levels in the various stages of the female sex cycle will begin shortly.

## BLOOD CHEMISTRY

| PYGMY CHIMPANZEES: | 1 - Lokolema | 2 - Matata | 3 - Bosondjo | Human Values |
|---|---|---|---|---|
| Cholesterol | 202 | 182 | 195 | 150-270 |
| Uric Acid | 6.1 | 6.0 | 6.6 | 2.6 |
| Total Protein | 6.7 | 6.0 | 6.3 | 6.0-8.0 |
| Albumin | 4.5 | 4.0 | 4.1 | 3.5-5.6 |
| Globulin | 2.2 | 2.0 | 2.3 | 1.3-3.2 |
| SGPT | 14 | 16 | 18 | 5-35 |
| SGOT | 40 | 48 | 46 | 8-40 |
| Alkaline Phosphatase | 52 | 56 | 51 | 25-92 |
| Total Bilirubin | 1.4 | 1.3 | 1.6 | 0.2-1.0 |
| Direct Bilirubin | 0.6 | 0.5 | 0.5 | 0.0-0.2 |
| LDH | 362 | 373 | 354 | 100-350 |
| CPK | 278 | 274 | 276 | 10-100 |
| TI (Total Iron) | 282 | 284 | 285 | 50-180 mg/100 ml |
| TIBC (Total Iron Binding Capacity) | 367 | 369 | 373 | 280-400 mg/100 ml |
| Ca. | 9.0 | 8.7 | 8.9 | 9.5-11.5 |
| Phosphatase | 4.1 | 4.4 | 4.0 | 2.5- |
| Na. | 133 | 131 | 138 | 138-146 |
| K. | 3.9 | 4.2 | 4.0 | 3.8-5.1 |
| Cl. | 99 | 98 | 98 | 95-106 |
| GLU | 106 | 101 | 95 | 80-120 |
| Amylase | 128 | 136 | 132 | 40-160 |
| BUN | 11 | 18 | 11 | 8.0-20.0 |
| Creat. | 0.9 | 0.8 | 0.9 | 0.8-1.3 |

## HEMATOLOGY

All 5 pygmy chimpanzees - Blood Type A

| | Lokolema ♀ | Matata ♀ | Bosondjo ♂ | Human Values |
|---|---|---|---|---|
| RBC | 5.78 | 5.65 | 4.38 | 4.5-5.5 |
| WBC | 12,900 | 13,000 | 20,400 | 6-10,000 |
| Hcrt. | 43 | 39 | 36 | 40-50 (males)<br>35-45 (females) |
| Hb. | 13.9 | 13.0 | 12 | 14-16 |
| Segs. | 76% | 75% | 55% | 66-75 |
| Bands | 2% | 4% | 2% | 0.3% |
| Lymph. | 18% | 19% | 38% | 20-30 |
| Eosin. | 4% | 2% | 4% | 2-3 |
| Monos. | | | | 1-2 |
| MCV | 74-39 | 69-07 | 82-19 | 86 (80-100) |
| MCH | 24-04 | 23-00 | 27-39 | 29 (27-32) |
| MCHC | 32-32 | 33-33 | 33-32 | 34 (33-38) |